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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,011

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Michiyuki Sugino

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EXAMINER

XIAO, KE

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

12/31/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,011	<b>Applicant(s)</b> SUGINO ET AL.	
	<b>Examiner</b> Ke Xiao	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 33-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 33-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-23 and 33-43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirakata (US 20020067332) in view of Kubota (US 2002/0075249).

Regarding **Claim 1**, Hirakata teaches a liquid crystal display device wherein the image signal to be displayed is written into a liquid crystal display panel while a backlight is activated intermittently within one frame period (Hirakata, Figs. 1A-1E), comprising:

a section for detecting a type of content of an image to be displayed on the liquid crystal display panel (Hirakata, paragraph [0031]); and

a section for variably controlling the illumination duration of the backlight based on the detected type of the content of the image (Hirakata paragraph [0032] backlight changes lighting modes when a motion picture is detected).

Hirakata fails to disclose that the detecting is based on information other than the image signal to be displayed as claimed. Kubota discloses a section for detecting a user's instructional input which defines the type of image to be displayed (Kubota, paragraph [0819]).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Hirakata, and have the input be user instructional input, as taught by Kubota, thus enabling the user to adjust the display brightness *in addition* to the automatic adjustments made by Hirakata.

Regarding **Claim 11**, Hirakata teaches a liquid crystal display device wherein an image signal to be displayed and a black display signal are written into a liquid crystal display panel within one frame period (Hirakata, Figs. 1A-1E, paragraph [0128]), comprising:

- a section for detecting a type of content of the image to be displayed on the liquid crystal display panel (Hirakata, paragraph [0031]); and

- a section for variably controlling the duration in which a black display signal is supplied to the liquid crystal display panel based on the detected type of the content of the image (Hirakata, Figs. 1A-1E, paragraph [0128]).

Hirakata fails to disclose that the detecting is based on information other than the image signal to be displayed as claimed. Kubota discloses a section for detecting a user's instructional input which defines the type of image to be displayed (Kubota, paragraph [0819]).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Hirakata, and have the input be user instructional input, as taught by Kubota, thus enabling the user to adjust the display brightness *in addition* to the automatic adjustments made by Hirakata.

Regarding **Claim 18**, Hirakata teaches a liquid crystal display device wherein display during of an image signal and non-display duration are provided in one frame period (Hirakata, Figs. 1A-1E), comprising:

a section for detecting a type of content of an image to be display on a liquid crystal display panel (Hirakata, paragraph [0031]), and

a section for variably controlling a ratio of display duration of the image display in one frame period, based on the detected type of the content of the image (Hirakata, paragraph [0032]).

Hirakata fails to disclose that the detecting is based on information other than the image signal to be displayed as claimed. Kubota discloses a section for detecting a user's instructional input which defines the type of image to be displayed (Kubota, paragraph [0819]).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Hirakata, and have the input be user instructional input, as taught by Kubota, thus enabling the user to adjust the display brightness *in addition* to the automatic adjustments made by Hirakata.

Regarding **Claim 33**, Hirakata teaches a liquid crystal display device wherein an image signal to be displayed and a black display signal are written into a liquid crystal display panel within one frame period (Hirakata, Figs. 1A-1E, paragraph [0128]), comprising:

a section for detecting a type of content of the image to be displayed on the liquid crystal display panel (Hirakata, paragraph [0031]); and

a section for variably controlling the duration in which a black display signal is supplied to the liquid crystal display panel based on the detected type of the content of the image (Hirakata, Figs. 1A-1E, paragraph [0128]).

Hirakata fails to disclose a section for detecting a user's instructional input. Kubota discloses a section for detecting a user's instructional input which defines the type of image to be displayed as well as changing the backlight control according to the user's instructional input (Kubota, paragraph [0819]).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Hirakata, and have the input be user instructional input, as taught by Kubota, thus enabling the user to adjust the display brightness *in addition* to the automatic adjustments made by Hirakata.

Regarding **Claim 18**, Hirakata teaches a liquid crystal display device wherein display during of an image signal and non-display duration are provided in one frame period (Hirakata, Figs. 1A-1E), comprising:

a section for detecting a type of content of an image to be display on a liquid crystal display panel (Hirakata, paragraph [0031]), and

a section for variably controlling a ratio of display duration of the image display in one frame period, based on the detected type of the content of the image (Hirakata, paragraph [0032]).

Hirakata fails to disclose a section for detecting a user's instructional input. Kubota discloses a section for detecting a user's instructional input which defines the

type of image to be displayed as well as changing the backlight control according to the user's instructional input (Kubota, paragraph [0819]).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Hirakata, and have the input be user instructional input, as taught by Kubota, thus enabling the user to adjust the display brightness *in addition* to the automatic adjustments made by Hirakata.

Regarding **Claim 2**, Hirakata further teaches wherein the backlight emits a flash of light over the full screen every one frame period in synchronization with a vertical synchronizing signal supplied to the liquid crystal panel (Hirakata, Figs. 1A-1E backlight is synced with the vsync signal).

Regarding **Claim 3**, Hirakata further teaches that the backlight is operated so that multiple luminous sections are activated one to the next, scan wise in synchronization with vertical and horizontal synchronizing signals supplied to the liquid crystal display panel (Hirakata, Figs. 17B).

Regarding **Claim 4, 12 and 34**, Hirakata further teaches that the luminous intensity of the backlight is varied in accordance with the illumination during of the backlight and the application duration of the black display signal (Hirakata, Figs. 1A-1E paragraph [0110]).

Regarding **Claim 5, 13, 19, 35 and 40**, Hirakata further teaches wherein gray scale levels of the input image signals are varied in accordance with the illumination duration of the backlight, the application duration of the black display signal and the ratio of the display duration of the image signal in the one frame period (Hirakata,

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paragraphs [0031-0032, 0110] gray signals and black signals change when backlight changes).

Regarding **Claims 6, 14, 20, 36 and 41**, Hirakata further teaches wherein gray scale voltages applied to the liquid crystal display panel in response to the input image signal are varied in accordance with the illumination duration of the backlight, the duration of the black display signal and the ratio of the display duration of the image signal in the one frame period (Hirakata, paragraphs [0031-0032, 0110]).

Regarding **Claim 7**, Hirakata further teaches wherein the frame frequency of the input image signal is varied based on the type of the content of the image (Hirakata, paragraph [0110]).

Regarding **Claim 9, 16 and 22**, Hirakata further teaches wherein the type of the content of the image is detected based on contents information obtained from external media (Hirakata, paragraph [0010] television is considered external media motion picture is detection from the contents information which is the image).

Regarding **Claim 10, 17 and 23**, Hirakata in view of Kubota further teaches that the type of the content of the image is detected based on video source select command information input by the user (Kubota, paragraph [0819]).

Regarding **Claims 37, 38, 42 and 43**, Hirakata in view of Kubota further teaches that the application duration of the black display signal as well as the ratio of the display duration in the one frame period are varied (Hirakata, paragraphs [0031-0032, 0110] gray signals and black signals as well as display light ratio change when backlight



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changes) based on video source select command or video adjustment command information input by the user (Kubota, paragraph [0815, 0819]).

Regarding **Claims 8, 15 and 21**, Hirakata in view of Kubota fails to teach that the type of content of the image is detected based on electronic program guide information included in broadcast data. The examiner takes official notice that broadcast data and EPGs are well known in the art to carry image type information including but not limited to the following: movie, tv show, high definition, standard definition, length, static, dynamic, aspect ratio. It would have been obvious to one of ordinary skill in the art at the time of the invention to allow the system of Hirakata and Kubota to obtain content type information from an EPG as in order to stream line the content detection system and allow for a more dynamic viewing experience.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-22, 33-43 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ke Xiao whose telephone number is (571)272-7776. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/

Supervisory Patent Examiner, Art Unit 2629

/Ke Xiao/

Examiner, Art Unit 2629